

CLAIMS:

1. A method of filtering an image with bar-shaped structures by means of Gabor filters, which are formed in the spatial domain by a two-dimensional Gaussian bell-shaped curve on which a cosine function is superimposed in a main direction, characterized in that the image is divided into tiles, that a predominant direction of the bar-shaped structures is determined for each tile and the filtration is undertaken in such a way that one tile at a time is rotated until the predominant direction lies at right angles to the main direction of the Gabor filter, that one filtration takes place in the main direction and another filtration takes place at right angles to this, and that the filtered tile is rotated back again.
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- 10 2. A method as claimed in claim 1, characterized in that, tile by tile, for one of the filtrations, a cosine oscillation with a frequency equal to the frequency of the structure at right angles to the predominant direction is derived, and in that the cosine oscillation is modulated with a Gaussian bell-shaped curve.
- 15 3. A method as claimed in claim 1, characterized in that, tile by tile, for the other of the filtrations, the width of the Gaussian bell-shaped curve depends on the change in direction of the structures on the tile.
- 20 4. A method as claimed in either one of claims 2 or 3, characterized in that the width of the Gaussian bell-shaped curve in the direction of the cosine oscillation is set to depend on the change in frequency on the tile.
- 25 5. A method as claimed in any one of the preceding claims, characterized in that selected angles, which are implemented in a particular program, are defined for the rotation, and then one of the defined angles that most closely accords with the rotation that is necessary *per se* is used for application of the filtration.
6. A method as claimed in any one of the preceding claims, characterized in that during the rotation, low-pass filtration takes place through interpolation.

7. A method as claimed in any one of the preceding claims, characterized in that binarization takes place simultaneously during the back-rotation.

5 8. A method as claimed in any one of the preceding claims, characterized in that, in order to filter a tile of defined size that does not overlap with adjacent tiles, a larger tile that does overlap with the adjacent tiles and is of a size of at least double the root is formed, and, after the rotation, the larger tile is filtered in a square having a side length corresponding to at least double the root of the larger tile.

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9. A method as claimed in any one of the preceding claims, characterized in that entries (values) lying below a threshold value and located at the edges of the one-dimensional filters are not taken into account during the filtration.